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5 ABSTRACT OF DISCLOSURE
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7 An instrument provides a quantitative measurement of an
8 analyte in a gas. It includes a detection cell that provides an indication
9 of an amount of analyte present in the gas, and a valve having a closed
10 position, a sample gas position, and a calibration gas position. There is
11 a calibration gas inlet orifice in communication with a gas outlet
12 through a first flow path including the valve and the detection cell, and
13 a sample gas inlet orifice in communication with the gas outlet through
14 a second flow path including a scrubber, the valve, and the detection
15 cell. Two orifices of different sizes, a sample gas orifice along the
16 second flow path, and a bypass orifice positioned between the sample
17 gas orifice and the gas outlet, prevent a build up of excessive pressure
18 in the instrument when the valve is in the closed position or the
19 calibration gas position.
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